UNITED STATES DISTRICT COURT SOUTHERN DISTRICT OF NEW YORK

ORIGINAL

UNITED STATES OF AMERICA

-v.-

INDICTMENT

ZHENGOUAN ZHANG,

a/k/a "Zheng Quan Zhang," a/k/a "Jim Z. Zhang,"

17 CRIM

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560

Defendant.

COUNT ONE (Wire Fraud)

The Grand Jury charges:

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Relevant Persons and Entities

1. At all times relevant to this Indictment, Firm-1 was a financial firm engaged in the trading of a variety of publicly traded securities and other financial products, headquartered in New York, New York, with facilities in various locations in the United States and abroad. At all relevant times, Firm-1 acted as a money maker, facilitating trading and liquidity in a variety of financial markets, and was a broker-dealer registered with the Securities and Exchange Commission pursuant to section 15 of the Securities Exchange Act of 1934. Firm-1 engaged in billions of dollars of equities and fixed income trading on a daily basis, through the use of Firm-1's proprietary algorithmic trading models (collectively, the "Trading Models"), which

Firm-1 developed to, among other things, predict market movements and make trading decisions involving publicly traded securities and other financial products in interstate commerce, as well through the use of Firm-1's proprietary trading platforms (collectively, the "Trading Platforms"), which Firm-1 developed to create, submit, and execute orders on exchanges and market centers.

2. At all times relevant to this Indictment, ZHENGQUAN ZHANG, a/k/a "Zheng Quan Zhang," a/k/a "Jim Z. Zhang," the defendant, was a citizen of the People's Republic of China residing in the United States. At all relevant times, ZHANG was employed by Firm-1 in technical roles, initially based in the greater New York City area, and later based in Firm-1's offices in San Jose, California.

ZHANG'S SCHEME TO STEAL PROPRIETARY AND CONFIDENTIAL DATA FROM FIRM-1

3. From at least in or about December 2016 through in or about March 2017, ZHENGQUAN ZHANG, a/k/a "Zheng Quan Zhang," a/k/a "Jim Z. Zhang," the defendant, orchestrated a scheme designed to steal from Firm-1 its proprietary data, including various Trading Models and Trading Platforms that were specifically developed by Firm-1, as well as confidential data that was associated with other employees of Firm-1, including email data. To do so, ZHANG purposefully circumvented efforts

that Firm-1 had taken in order to protect its data from such theft, and did so through the use of network infrastructure located in the Southern District of New York and elsewhere.

- 4. The trading decisions and efficiencies resulting from Firm-1's use of the Trading Models and the Trading Platforms contributed substantially to Firm-1's market share in the financial markets in which Firm-1 traded, and to Firm-1's overall trading profits. Because of the competitive advantages and economic value that Firm-1 derived from these assets, Firm-1 implemented a variety of measures designed in part to protect . both the computer source code that comprised the Trading Models and the computer source code that comprised the Trading Platforms from disclosure to a competitor or to the public. These measures included, among other things, restrictions on the ability of Firm-1 employees to access this data through the use of encryption keys for the code; restrictions on the ability of Firm-1 employees to download data from their work computers to other storage devices; and employee agreements and guidance through which Firm-1 employees agree to maintain the confidentiality of non-public Firm-1 information, including its trade secrets and other intellectual property.
- 5. Starting at least in or about December 2016, ZHENGQUAN ZHANG, a/k/a "Zheng Quan Zhang," a/k/a "Jim Z. Zhang," the :

defendant, began efforts to steal non-public Firm-1 data, by circumventing these restrictions and then successfully exfiltrating data, including Trading Models, Trading Platforms, and email data for other Firm-1 employees, from Firm-1 to a third-party software development site (the "Development Website"). Among other things, ZHANG had stored in a particular directory on Firm-1's networks millions of files containing Firm-1's proprietary data, including unencrypted portions of the source code of the Trading Models, as well as email data for other Firm-1 employees, to which ZHANG had not been granted access by Firm-1. To gain access to this data, ZHANG had written code on Firm-1's systems, including code to search for encryption keys, so that he could access otherwise encrypted portions of the Trading Models. ZHANG also modified an application on Firm-1's systems to steal the usernames and passwords of other Firm-1 employees, so that he could access and steal their email data.

6. In order to circumvent Firm-1's security measures and to steal Firm-1's data, ZHENGQUAN ZHANG, a/k/a "Zheng Quan Zhang," a/k/a "Jim Z. Zhang," the defendant, wrote computer code designed to exfiltrate the data to the Development Website, including through a Firm-1 backup server located in the Southern District of New York.

Statutory Allegation

7. From at least in or about December 2016 through in or about March 2017, in the Southern District of New York and elsewhere, ZHENGQUAN ZHANG, a/k/a "Zheng Quan Zhang," a/k/a "Jim Z. Zhang," the defendant, having devised and intending to devise a scheme and artifice to defraud, and for obtaining money and property by means of false and fraudulent pretenses, representations, and promises, transmitted and caused to be transmitted by means of wire, radio, and television communication in interstate and foreign commerce, writings, signs, signals, pictures, and sounds for the purpose of executing such scheme and artifice, and aided and abetted the same, to wit, ZHANG used stolen login credentials of other employees of Firm-1 to access and exfiltrate proprietary and confidential data of Firm-1 through the use of wire transmissions in and through the Southern District of New York.

(Title 18, United States Code, Sections 1343 and 2.)

COUNT TWO

(Computer Fraud)

The Grand Jury further charges:

- 8. The allegations contained in paragraphs 1 through 6 of this Indictment are repeated and realleged as if fully set forth herein.
- 9. From at least in or about December 2016 through in or about March 2017, in the Southern District of New York and elsewhere, ZHENGQUAN ZHANG, a/k/a "Zheng Quan Zhang," a/k/a "Jim Z. Zhang," the defendant, intentionally accessed a computer without authorization and exceeded authorized access, and thereby obtained information from a protected computer, for purposes of commercial advantage and private financial gain, the value of which information obtained exceeded \$5,000, and aided and abetted the same, to wit, ZHANG accessed proprietary and confidential data on the computer networks of Firm-1 by circumventing access restrictions placed upon that data by Firm-1, and then exfiltrated that data from Firm-1 to a third-party website.

(Title 18, United States Code, Sections 1030(a)(2)(C), 1030(c)(2)(B), and 2.)

COUNT THREE (Aggravated Identity Theft)

The Grand Jury further charges:

- 10. The allegations contained in paragraphs 1 through 6 of this Indictment are repeated and realleged as if fully set forth herein.
- about March 2017, in the Southern District of New York and elsewhere, ZHENGQUAN ZHANG, a/k/a "Zheng Quan Zhang," a/k/a "Jim Z. Zhang," the defendant, knowingly transferred, possessed, and used, without lawful authority, a means of identification of another person, during and in relation to a felony violation enumerated in Title 18, United States Code, Section 1028A(c), and aided and abetted the same, to wit, ZHANG transferred, possessed, and used, and aided and abetted the transfer, possession, and use of, the usernames and passwords of other employees at Firm-1 during and in relation to the wire fraud and computer fraud offenses charged in Counts One and Two of this Indictment.

(Title 18, United States Code, Sections 1028A(a)(1), 1028A(b), 1028A(c)(4), 1028A(c)(5) and 2.)

COUNT FOUR

(Theft of Trade Secrets)

The Grand Jury further charges:

- 12. The allegations contained in paragraphs 1 through 6 of this Indictment are repeated and realleged as if fully set forth herein.
- 13. From at least in or about December 2016 through in or about March 2017, in the Southern District of New York and elsewhere, ZHENGQUAN ZHANG, a/k/a "Zheng Quan Zhang," a/k/a "Jim Z. Zhang," the defendant, with the intent to convert a trade secret that was related to a product and service used in and intended for use in interstate and foreign commerce, to the economic benefit of others than the owner thereof, and intending and knowing that the offense would injure the owner of that trade secret, knowingly stole, and without authorization appropriated, took, carried away, and concealed, and by fraud, artifice and deception obtained such information; and without ' authorization copied, duplicated, sketched, drew, photographed, downloaded, uploaded, altered, destroyed, photocopied, replicated, transmitted, delivered, sent, mailed, communicated, and conveyed such information; and attempted to do so, to wit, ZHANG stole and attempted to convert to his own use Firm-1's proprietary source code, which was a trade secret of Firm-1.

(Title 18, United States Code, Sections 1832 and 2.)

FORFEITURE ALLEGATIONS

- 14. As a result of committing the offense alleged in Count One of the Indictment, ZHENGQUAN ZHANG, a/k/a "Zheng Quan Zhang," a/k/a "Jim Z. Zhang," the defendant, shall forfeit to the United States, pursuant to Title 18, United States Code, Section 982(a)(2)(A), any and all property constituting or derived from, proceeds obtained directly or indirectly, as a result of the commission of the offense alleged in Count One of this Indictment, including but not limited to a sum of money in United States currency representing the amount of proceeds traceable to the commission of said offense.
- 15. As a result of committing the offense alleged in Count Two of this Indictment, ZHENGQUAN ZHANG, a/k/a "Zheng Quan Zhang," a/k/a "Jim Z. Zhang," the defendant, shall forfeit to the United States, pursuant to Title 18, United States Code, Section 1030(i), any and all property, real or personal, constituting or derived from, any proceeds obtained directly or indirectly, as a result of the offense alleged in Count Two of this Indictment, and any and all personal property that was used or intended to be used to commit or to facilitate the commission of said offense.
- 16. As a result of committing the offense alleged in Count Four of the Indictment, ZHENGQUAN ZHANG, a/k/a "Zheng Quan

Zhang," a/k/a "Jim Z. Zhang," the defendant, shall forfeit to the United States, pursuant to Title 18, United States Code, Section 2323, any property used, or intended to be used, in any matter or part to commit or facilitate the commission of the offense alleged in Count Four of the Indictment, and any property, real or personal, constituting or derived from any proceeds obtained directly or indirectly as a result of said offense.

Substitute Assets Provision

- 17. If any of the above-described forfeitable property, as a result of any act or omission of the defendant:
- a. cannot be located upon the exercise of due diligence;
- b. has been transferred or sold to, or deposited
 with, a third person;
- c. has been placed beyond the jurisdiction of the Court;
 - d. has been substantially diminished in value; or
- e. has been commingled with other property which cannot be subdivided without difficulty;

it is the intent of the United States, pursuant to Title 18,
United States Code, Section 982(b), Title 21, United States
Code, Section 853(p), and Title 28, United States Code, Section

2461, to seek forfeiture of any other property of the defendant up to the value of the above forfeitable property.

(Title 18, United States Code, Sections 981, 982 & 1030; Title 21, United States Code, Section 853; and Title 28, United States Code, Section 2461.)

FOREPERSON

JOON H. KIM

Acting United States Attorney

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- v. -

ZHENGQUAN ZHANG,
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INDICTMENT

17 Cr. ____

(18 U.S.C. §§ 1028A, 1030, 1343, 1832 & 2)

JOON H. KIM

Acting United States Attorney.

TRUE BILL

FOREPERSON

9/13/17

Filed indictment

Case assigned to Judge Furman

USMJ Francis MQ